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(54) Title: MUTATIONS CAUSED BY ACTIVATION-INDUCED CYTIDINE DEAMINASE

(57) **Abstract:** Methods for causing mutations in genes expressed in eukaryotic cells are provided. The methods involve expressing an activation-induced cytidine deaminase (AID) in the cells. The mutated genes can be any gene that is operably linked to a promoter, where the gene is within about 2 kilobases of the promoter. Examples include antibody genes. Also provided are cells expressing AID. The cells can be from any eukaryote, and include hybridoma cells and myeloma fusion partners.